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March 7, 2008

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: *Ex Parte* Submission of National Programming Service
*Measurement Standards for Digital Television Signals Pursuant to the Satellite Home
Viewer Extension and Reauthorization Act of 2004*, ET Docket No. 06-94
DTV Consumer Education Initiative, MB Docket No. 07-148

Dear Ms. Dortch:

National Programming Service (“NPS”), through its attorneys, submits this *ex parte* letter in response to comments by EchoStar Satellite, L.L.C. (“EchoStar”), DIRECTV, Inc. (“DIRECTV”) and the Consumer Electronics Association (“CEA”) in the above-referenced docket supporting the Commission’s recommendation to Congress that the Commission be authorized to develop a predictive model to determine whether a subscriber is “unserved” by digital signals.¹ The urgency for simple and straightforward eligibility criteria to determine whether a household is unserved by digital signals is heightened by the rapidly approaching date for the digital transition. NPS urges the Commission to take action to ensure that television viewers who are unable to access over-the-air digital signals after the digital conversion on February 17, 2009 have the ability to obtain broadcast network signals through other means, including distant network signals.

Specifically, adoption of an accurate digital predictive model would help facilitate a smooth transition to digital signals: (i) consumers who do not get an over-the-air signal would determine their eligibility for distant digital signals, and (ii) consumers could use the predicted signal strength at a particular location to determine the type of over-the-air digital antenna that is necessary. Additionally, NPS urges the Commission to adopt a transitional mechanism that would establish a limited time period during which consumers who are unable to receive an over-the-air digital signal could qualify for distant digital signals without seeking a waiver from the relevant local broadcast stations. The current waiver process cannot accommodate the large

¹ Comments of EchoStar Satellite, L.L.C., ET Docket No. 06-94, Exhibit 1 at 3 (filed Aug. 7, 2006) (“EchoStar Comments”); Comments of DIRECTV, Inc., ET Docket No. 06-94, 1 (filed Aug. 7, 2006) (“DIRECTV Comments”); Comments of the Consumer Electronics Association, ET Docket No. 06-94, 3 (filed Aug. 7, 2006).

volume of requests that is likely when a significant number of households lose over-the-air signals. Finally, NPS encourages the Commission to work with the National Telecommunications and Information Administration (“NTIA”) and industry participants to establish a central source for consumers to reference to determine their options for obtaining a digital signal at their particular location (*e.g.*, video service providers, over-the-air antenna, distant digital signal).

I. Background and Summary

NPS has operated as a satellite programming distributor since 1985. NPS offers satellite programming packages to C-band satellite dish owners and currently serves over 40,000 C-band subscribers on its network (including providing distant signals to those who qualify). Additionally, in 2006, NPS began providing distant network television service to DBS subscribers. NPS uses DecisionMark, a broadcaster-owned company providing technology for copyright compliance, to determine whether potential subscribers are eligible to receive distant network signals. Today, NPS provides distant network service to more than 100,000 customers. Most of these subscribers are located in rural areas and, without distant signal service, would not have access to broadcast network signals.

In the instant proceeding, the Commission, in accordance with the Satellite Home Viewer Extension and Reauthorization Act of 2004 (“SHVERA”), proposes to amend its rules to include procedures for measuring digital signal strength at specified locations to determine whether a household is eligible to receive distant digital network signals via satellite.² The proposed procedures are modeled after those currently in place for measuring the field strength of analog television signals. The current rules for analog signals provide a predictive model as an alternative to the signal measurement procedures to determine whether a household is unserved by an over-the-air signal.³ Currently, the predictive model is the predominant method used to determine a household’s eligibility for distant network signals. However, SHVERA does not permit the use of a predictive model to determine *digital* signal strength. The Commission has recommended that Congress amend the copyright law and the Communications Act to allow a predictive model to be used to determine eligibility for distant digital signals.

Television viewers, particularly those in rural areas, who currently access broadcast network stations using over-the-air analog antennas may lose access to local broadcast network signals when analog signals are no longer available. This issue will arise in large part as a result of the differences in digital and analog signal characteristics. Under the Commission’s proposed signal measurement rules and due to the lack of a predictive model, many of these viewers will not have the option to subscribe to distant digital signals. As discussed in EchoStar’s comments, the Commission’s proposed measurement standards fail to account for the realities of digital signal propagation and the manner in which viewers receive over-the-air

² *Measurement Standards for Digital Television Signals Pursuant to the Satellite Home Viewer Extension and Reauthorization Act of 2004*, ET Docket No. 06-94, Notice of Proposed Rulemaking, FCC 06-51 (rel. Apr. 28, 2006) (“NPRM”).

³ *See* 17 U.S.C. § 119(d)(10)(A); 47 C.F.R. § 73.683(a).

broadcast signals.⁴ Further, as DIRECTV notes, it is likely that consumers will not have ready access to digital testing in the first place and thus, would be unable to demonstrate that they are eligible for distant network signals. Once the digital transition occurs, certain consumers who cannot receive an over-the-air signal may have no access to broadcast signals at all. The proposed rules would only offer these consumers a costly, burdensome and cumbersome process, leaving them frustrated and, often times, without access to digital broadcast signals.⁵

Thus, consumers unable to receive an over-the-air digital signal may find little recourse in the distant digital network signal provisions of SHVERA. The current technical and legal limitations on consumers' ability to access broadcast signals could result in a significant number of television viewers losing access to television signals upon the digital television conversion scheduled for February 2009. To avoid widespread consumer frustration and disruptions in broadcast signal reception, the Commission and Congress must act on an expedited basis to adopt laws to establish a simple test to determine how a consumer can receive digital broadcast signals and to provide such consumers access to distant network signals via satellite as a potential solution.

II. Despite the Availability of Digital Television Sets and Converter Boxes, Many Consumers Will Be Unable to Receive Digital Signals When Analog Stations Go Dark

A recent study has been published predicting that a significant number of households may be unable to receive over-the-air television signals when analog signals are no longer available.⁶ Millions of households may lose over-the air signals upon the transition due to differences in digital and analog signal coverage, as well as consumer confusion regarding the necessary equipment required to access digital signals.⁷ While debate remains regarding the

⁴ EchoStar Comments at 7-19.

⁵ DIRECTV Comments at 2.

⁶ See Centris Press Release, *New Research Sheds Light on Major Glitch in the DTV Transition* (Feb. 12, 2008), available at <http://www.centris.com/pages/ViewNews.aspx?newsID=34&SiteID=9> ("Centris Press Release"); Roy Furchgott, *Many Obstacles to Digital TV Reception, Study Says*, N.Y. Times (Feb. 11, 2008), available at www.nytimes.com/2008/02/11/technology/11analog.html?_r=1&scp=1&sq=obstacles+digital+tv&st=nyt&oref=slogin# (citing study by Centris estimating that 5.9 million households may be unable to receive the broadcast signals after the digital transition).

⁷ See Testimony of Chris Murray, Senior Counsel, Consumers Union, Before the U.S. House of Representatives Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, *Status of the Digital Television Transition: 370 Days and Counting* (Feb. 13, 2008), available at http://energycommerce.house.gov/cmte_mtgs/110-ti-hrg.021308.Murray-testimony.pdf (citing Consumer Reports National Research Center study survey results showing aspects of consumer confusion and misinformation regarding the digital transition).

number of households that will be unable to receive an over-the-air signal after the transition, the uncertainty indicates a lack of clear understanding of the magnitude and the cause of the problem.

Part of the uncertainty in the numbers stems from the differences between the characteristics of analog and digital television signals and the inability to predict the actual coverage area of digital signals. Digital signals may not be capable of traveling as far as the Commission had predicted in its study of digital signal coverage patterns.⁸ As an analog signal gets weaker, the television picture degrades. By contrast, a weaker digital signal causes the television picture to be lost entirely (commonly referred to as the “cliff effect”). Additionally, digital signals are more susceptible to interference from impediments in the landscape, such as hills, trees and buildings. Therefore, certain over-the-air households, particularly those located in the edges of a television signal’s coverage area where viewers currently receive a slightly degraded analog picture, will experience a complete loss of reception upon switching to a digital signal.

The government’s consumer education outreach efforts have focused primarily on the need for digital receivers in newer television sets and digital-analog converter boxes to prepare for the digital transition. However, viewers who purchase a digital television set or a government-subsidized digital-analog converter box still may not be capable of receiving digital broadcast signals due to inadequate signal coverage. *Very little has been discussed regarding the differences between analog and digital station coverage and the potential need for consumers to purchase sophisticated and expensive rooftop antennas in order to obtain a digital over-the-air signal at their homes.*

Even after acquiring a new antenna, depending on the location of the home and the signal strength of the local digital station, the consumer may still not be able to receive local broadcast signals without subscribing to cable, satellite or telephone video service. Without adequate information about which methods of receiving broadcast signals are available to individual consumers, consumers will experience undue frustration and signal disruptions as they spend money on equipment and services that may not provide the ability to receive the broadcast signals to which they were seeking access. Where local broadcast signals are not available through cable, satellite or other subscription services, distant network signals delivered via satellite could be a potential solution; however, the current distant signal rules limit the ability of consumers’ access to distant network signals.

The Commission and members of Congress have acknowledged the need to increase efforts in connection with the transition to avoid widespread confusion and disruption in access to broadcast network television by consumers. As Chairman Martin recognized in his testimony before Congress on February 13, 2008, American consumers remain confused about what is necessary to prepare for the digital transition.⁹ Additionally, Senator Inouye and

⁸ See Centris Press Release.

⁹ Written Statement of the Honorable Kevin J. Martin, Chairman, Federal Communications Commission, Before the Committee on Energy and Commerce, Subcommittee on

Representative Dingell have urged the President to make the digital television transition a clear national priority, as much still needs to be done to ensure a smooth transition.¹⁰ While consumer education is important to ensuring a smooth transition to digital television, consumers ultimately need to be supplied with the resources and an appropriate legal structure that allow them to access broadcast network signals. Expanding consumers' options for obtaining digital signals is an important and necessary component of the solution to the problems described here.

III. The Proposed Measurement Procedure for Digital Signals Is Flawed Because It Does Not Account for the True Experience of Consumers Who Try to Receive an Over-the-Air Signal

The assumptions built into the proposed digital signal measurement rules were designed for analog signals. As discussed above, the differences in digital and analog signal characteristics may cause a significant number of viewers to lose the ability to receive signals off the air. Therefore, the proposed digital signal measurement procedures are not likely to reflect the actual ability of the household to receive an over-the-air digital signal. Further, as noted in the Inouye/Dingell Letter, a large portion of the households that rely on over-the-air broadcast signals are poor, elderly or part of a minority group.¹¹ It is unrealistic to expect certain households to acquire the types of sophisticated antennas and equipment that the proposed measurement procedures assume.

Individual site testing is an expensive, time-consuming and cumbersome process, which has been replaced for analog signals with a predictive model. As an initial matter, requiring consumers to go back to outdated and little-used on-site testing procedures burdens the consumer and hinders ubiquitous access to digital broadcast signals. The Commission has acknowledged that a predictive model provides a simple, cost-effective method for determining the availability of a signal at a specified location.¹²

Moreover, there does not appear to be a sufficient number of testers to perform digital signal strength tests for the millions of households that may be unserved by over-the-air signals. Since the analog predictive model is the predominantly used method for determining eligibility for analog distant network signals, on-site testing resources are likely to be scarce.

Telecommunications and the Internet, U.S. House of Representatives at 2-3 (Feb. 13, 2008); *see also*, Remarks of Commissioner Jonathan S. Adelstein, "Mixed Signals: How TV Retailers Mislead Consumers on the Digital Television Transition," U.S. PIRG Report at 2 (Feb. 13, 2008).

¹⁰ Letter from Daniel K. Inouye, Chairman, and John D. Dingell, Chairman, to The Honorable George W. Bush, President, Re: Digital Television Conversion (Feb. 8, 2008) ("Inouye/Dingell Letter").

¹¹ *Id.* at 1.

¹² *See Report to Congress, "Study of Digital Television Field Strength Standards and Testing Procedures,"* ET Docket No. 05-182, 20 FCC Rcd 19504 ¶ 132 (rel. Dec. 9, 2005).

Given the impending digital transition deadline, there is likely to be increased demand in on-site digital testing services.

A requirement to obtain on-site testing for analog signals at costs of \$50 to \$150 (the cost of digital testing is unknown) effectively serves as an impediment to receiving distant network signals, particularly for low-income consumers. Access to distant network signals upon the transition will be further impeded by the volume of households that are likely to seek waivers from broadcast stations to receive distant signals. As a practical matter, the current waiver process cannot accommodate the large volume of requests that is likely when millions of households lose over-the-air signals. As a result, these households may be left without access to broadcast signals for a prolonged period.

Therefore, meeting the current procedural requirements for demonstrating eligibility for distant network signals is not likely to be feasible for many of the households that are unable to receive over-the-air digital signals.

IV. Congress and the Commission Must Take Expedited Action to Amend the Rules to Allow Streamlined Procedures for Consumers to Determine Whether They Can Receive Over-the-Air Digital Signals

In light of the looming deadline for the digital transition, a simple predictive model that is as accurate as technically possible must be adopted on an expedited basis to allow consumers to determine which alternative for obtaining digital broadcast signals suits them best and to obtain the equipment and/or services necessary to view digital signals. SHVERA is effective until December 31, 2009; thus, by waiting until Congress acts to renew or reauthorize this legislation, Congress and the Commission will miss the opportunity to address the problems that many consumers are likely to face when analog transmissions cease on February 17, 2009.

Therefore, a digital predictive model must be adopted *before* the transition occurs to allow consumers to make choices about how to receive digital broadcast signals and avoid disruptions in signal reception. The digital predictive model should be consumer-friendly and increase access to digital television signals. As such, NPS urges the Commission to avoid requirements for distant network signals that involve a cumbersome on-site signal measurement procedures. Further, the model should be tailored for digital signals and thus, should account for the differences in a digital and an analog signal. A simple predictive model for digital signals is critical not only to determining distant signal eligibility, but also to identifying the type of off-air antenna that would be required at a particular location to obtain an over-the-air signal. Specifically, a predicted approximation of the signal strength at a customer's location would assist the consumer in selecting an appropriate antenna needed to receive a signal at that particular location.

Chairman Martin has recently endorsed switching to all-digital broadcast service in a small number of test markets to gage the impact of the transition.¹³ These market tests would provide an ideal opportunity to begin development of the appropriate digital predictive model. However, any predictive model that may be adopted will need slight modifications and adjustments to ensure that it accurately predicts the signal strength at a given location. Because it is unlikely that a predictive model can be implemented and perfected by February 17, 2009, NPS proposes that the Commission adopt a transitional mechanism to ensure that consumers can access digital broadcast signals immediately upon the transition. By way of example, the Commission could establish a “digital adjustment period,” during which consumers would be permitted to replace an unattainable over-the-air local broadcast signal with the distant network signal of the same network without the need for a waiver from the local broadcast station, provided that the subscriber certified that broadcast signal in fact was not being received at his or her premises.

Although the Commission believes it does not have authority under SHVERA to adopt a predictive model, NPS urges the Commission to acknowledge the potentially millions of viewers that will lose access to broadcast signals upon the transition to digital-only signals. NPS encourages the Commission to urge Congress to adopt amendments to the Communications Act and the copyright laws on an expedited basis to authorize the Commission to implement a predictive model that appropriately addresses the digital transition.

V. NPS Encourages the Commission to Expand the Scope of Its Consumer Education Initiatives

NPS applauds the Commission’s willingness and ability to work with industry on the myriad challenging aspects of the digital transition. NPS encourages the Commission to work with industry to establish a government-approved, central source for information that a consumer can reference to determine the options available to him or her for receiving digital broadcast network signals. Such a source should provide the types of off-air antennas that will work at the consumer’s particular location and the multichannel video programming distributors (“MVPDs”) serving the consumer’s market, as well as the consumer’s distant network signal qualifications.¹⁴ Establishing a comprehensive resource accessible to all consumers would offer consumers a tangible solution and significantly mitigate confusion upon the transition. By continuing to work with NTIA and industry participants, including broadcasters, MPVDs,

¹³ See Letter to Michael J. Copps, Commissioner, FCC, from Kevin J. Martin, Chairman, FCC, Re: Digital Transition Test Markets (Mar. 3, 2008).

¹⁴ The antennaweb.org site offered by the National Association of Broadcasters and the Consumer Electronics Association may be appropriate as a starting point for developing the portion of the resource addressing over-the-air antenna requirements; however, the methodology for signal measurement used by antennaweb.org would need to be examined closely. Market tests could also assist in gauging and refining the accuracy of the signal measurement methodology used by antennaweb.org and other similar resources.

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antenna manufacturers, and others, the Commission can further ensure a smooth transition to digital signals.

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NPS respectfully requests that the Commission consider the foregoing proposal to adopt rules on an expedited basis to provide consumers with the tools necessary to determine, prior to the digital transition, how best to receive digital broadcast network signals. To the extent that the Commission does not have authority under SHVERA to adopt rules consistent with this proposal, the Commission should urge Congress to amend the statute to allow the Commission to adopt such rules.

Respectfully submitted,

/s/

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